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July 2, 2002

The Honorable Cynthia Sullivan
Chair, King County Council
Room 1200
COURTHOUSE

Dear Councilmember Sullivan:

This letter transmits a motion for Council action to authorize King County's participation in a federal project to reduce flood hazards to life and property in and around the City of Snoqualmie. The project is called the Snoqualmie River Section 205 Flood Damage Reduction Project. It is proposed by the United States Army Corps of Engineers (Corps) and will be jointly sponsored by the City of Snoqualmie and King County. This motion will authorize the King County Executive to enter into two agreements for this project. The first is a Project Cooperation Agreement (PCA) with the Corps to complete design and construction of the project. The second is an Interlocal Agreement (ILA) with the City of Snoqualmie so the two local agencies can share the local sponsorship responsibilities defined in the PCA.

As you are likely aware, flooding has severely and repeatedly damaged hundreds of homes and businesses within and around the City of Snoqualmie, which has the highest concentration of flood prone structures in King County. The National Flood Insurance Program has paid more claims in the City of Snoqualmie than in any other Washington State city. Flooding in this area causes economic damages that average more than $1.6 million per year, as estimated by the Corps. Moreover, the depth and scale of flooding in this area represents a significant public health and safety hazard.

The Corps has identified 652 existing flood-prone structures in and around the City of Snoqualmie. These include three public schools, 8 churches, 39 commercial structures, 25 mobile homes, and 577 houses. They have estimated a total population of 1,505 residents in these flood-prone homes.

The Corps found that flood damages occur to homes and businesses in and around the City of Snoqualmie whenever the river exceeds a flow of 30,000 cubic feet per second (cfs) over Snoqualmie Falls. Unfortunately, this is a very common flow; the Snoqualmie River has exceeded 30,000 cfs in 25 of the last 42 years. The flood of November 1986, rose above the floors of 123 homes and 36 businesses, causing more than $4 million in damages. The flood

of November 1990, inundated roughly 2/3 of the homes in the community, many with depths of six feet or more.

This flood problem has long been recognized for its unusual severity. In 1989, the Snoqualmie Valley Community Plan concluded that, "achieving a long-term solution to flood damages within the City of Snoqualmie is one of King County's highest priorities for this planning area." The same flood problems were identified as a high priority in the Flood Hazard Reduction Plan adopted by King County in 1993.

Even before that time, individuals had begun raising some homes above flood levels. Subsequent grant projects have actually removed some of the most flood-prone homes, and literally dozens of others have been elevated. However, this approach is structurally not feasible for many of the homes and businesses in the historic Snoqualmie community. For those properties and the occupants, this project is a unique opportunity for flood relief.

Flood depths in Snoqualmie River are dominated by hydraulic conditions in the straight, narrow, and rocky quarter-mile length of river channel immediately above Snoqualmie Falls. Excavations in this small area can reduce flood depths throughout the community, which is immediately upstream. Therefore, the Corps proposal is to widen the two narrowest portions of this quarter-mile length in order to reduce the depth of flooding in and around the City of Snoqualmie.

On the right (north) bank of the river, a bedrock outcrop would be blasted and removed. This would remove 10,704 cubic yards of material, widening 340 feet of the river channel by as much as 50 feet. On the left (south) bank, excavation is not expected to require blasting. The project would remove 21,029 cubic yards of material, widening 475 feet of the river channel by as much as 25 feet. These two excavations will provide most of the project benefit. Native shrubs and trees would be planted and re-established in both excavation areas, and large woody debris would be installed along the left bank widening for fish habitat purposes.

In addition, the project would remove a failing railroad bridge that now spans only half of the river. This bridge has caused flood problems in the past by trapping debris; those problems could be greatly compounded if the bridge were to completely fail in a major flood.

Together, these measures will reduce the average 100-year flood depth in Snoqualmie by an estimated 1.2 feet. While this difference is small in comparison to the total depth, it is enough to prevent more than half of the economic damages now caused by flooding. The Corps estimates that the project will save an average of $837,000 per year that would otherwise be lost to flood damage. More importantly, the project will also provide significant public health and safety benefits by reducing the frequency, duration, and depth of flood water.

These benefits will occur throughout the community, both within and outside the City. During extreme floods the entire community is under nearly lake-like conditions, as floodwaters in town rise to depths that are determined by the narrow reach to be widened by this project.

Despite the significant flood reduction benefits of this proposal, I want to note for your attention that the project does have some opposition. We have heard from the City of Carnation and from residents in the lower Snoqualmie Valley that they believe this proposal will merely move the City of Snoqualmie's flood problem into downstream communities. The Corps studied this possibility and found that the project could very slightly deepen the downstream flood problem. However, the downstream impact would be much smaller than the project's benefits in Snoqualmie.

At worst, the Corps found that downstream depths would increase by no more than 0.1 feet (slightly more than one inch). This estimate is for the area immediately downstream of the project, and relates to a 100-year flood. Project impacts would diminish with distance downstream, and would be smaller in lesser (more common) flood events.

Because the Corps analysis was received skeptically by some, the project team hired the firm of Northwest Hydraulic Consultants, Inc. (NHC) to independently review the downstream impact estimates. The NHC review supported both the technical methodology and the conclusions reached by the Corps. Moreover, NHC found the Corps analysis to be "perhaps somewhat conservative," meaning that actual downstream impacts may be less than what was predicted by the Corps.

Although the downstream impacts are expected to be small, they will occur in areas where flood problems are already significant. Therefore, the project team worked hard to identify additional project work that might help the downstream community. The project includes a Downstream Assistance Program that was developed in a series of five public meetings in the lower Snoqualmie Valley. This meeting series was consistently attended by many interested landowners and by officials from the City of Carnation.

The Downstream Assistance Program would offer a cost share to all downstream property owners who will agree to raise their homes or other buildings above 100-year flood levels. Although the Corps has never before included such a grant program in any of their projects, they have agreed that this approach meets the unique needs of the Snoqualmie basin, and they will share in a portion of the costs of the Downstream Assistance Program.

One other downstream landowner has raised concerns with the project. Puget Sound Energy (PSE) owns and operates the Snoqualmie Falls Hydroelectric Project, which takes flow from the river immediately downstream of the proposed excavation. PSE has offered many constructive comments to the project design plans. At this time, it appears that ongoing design revisions should help to minimize any disruption to the hydroelectric operation.

The two proposed agreements have been carefully developed to meet federal requirements and to clearly define the roles and responsibilities of all three agencies. The proposed PCA between the Corps and King County follows a document model that is rigidly standardized and structured by federal administrative rules. Departures from the model text would have required a lengthy process of review and approval, and so a number of provisions in the PCA are heavily weighted in the federal government's favor. However, the unique nature of this

project site and this proposal warrant special attention to detail. Therefore, the agencies are working to develop a Project Management Plan (PMP) that will better clarify working relationships among the parties. Perhaps the most important function of the PMP will be to specify a dispute resolution process. We believe that the PMP will provide an important assurance that community concerns and issues, as well as any construction problems, can be resolved quickly and appropriately.

As project design details have been refined, not surprisingly, the estimated total project cost has risen. The total project cost is now estimated at approximately $3.83 million, of which the Corps of Engineers would contribute $2.22 million. King County would contribute $894,000, and the City of Snoqualmie would contribute $717,000. The adopted 2002 Water and Land Resources Division Capital Improvement Project (CIP) Budget includes $770,000 from the River Improvement Fund to support the King County share of this project. An additional $165,000 will be proposed in the 2003 budget; this would cover the recent cost increase and provide a small contingency against additional changes.

This proposal fulfils policy direction established in the King County Comprehensive Plan. Policies CP-916, CP-917, and CP-918 specifically support the project activity proposed above Snoqualmie Falls. Policy CP-919 is the basis for the Downstream Assistance Program. The proposal is fully consistent with this Comprehensive Plan direction.

Timing for your consideration and approval is critical. Federal funding for this project is available in the Fiscal Year 2002 budget, which ends in September. Corps staff has been advised not to begin new construction projects in the following Fiscal Year (2003). Therefore, in order to avoid delay and uncertainty in federal funding, they advise that the PCA should be executed before the end of September 2002.

I am asking that you begin to consider this project at this time in order that approval may be possible on the schedule advised by the Corps. In the meantime, project staff will continue to complete design plans and to negotiate terms of the Project Management Plan. WLRD staff will be prepared to brief the Council on the status of those elements in your consideration of this project and the needed legislative approval.

Thank you for considering this motion. If you have any questions or need more information, please call Daryl Grigsby, Manager of the Water and Land Resources Division in the Department of Natural Resources and Parks, at (206) 296-6585.

Sincerely,

Ron Sims
King County Executive

Enclosures

cc: King County Councilmembers
ATTN: David deCourcy, Chief of Staff
Shelley Sutton, Policy Staff Director
Anne Noris, Clerk of the Council
The Honorable R. Fuzzy Fletcher, Mayor, City of Snoqualmie
Steve Call, Director, Office of Budget
Steve Broz, Budget Analyst, Office of Budget
Pam Bissonnette, Director, Department of Natural Resources and Parks (DNRP)
Daryl Grigsby, Manager Water and Land Resources Division (WLRD), DNRP
Dave Clark, Manager, Flood Hazard Reduction Section, WLRD, DNRP